COMPACT EFFECTORS

EX SERIES

The AKAI EX Series consists of compact effectors that are perfect for all types of multi-track mixing. They are also excellent for use in sound reinforcement. The standard input/output level and optimum load impedance for all models is −10dB/10k ohms or greater; the same as the effect send/receive level for general mixers. So, it is easy to set the level for effect sending and receiving during the mixing process. Of course, the effects can be turned on and off using foot switches.

EX65D DIGITAL DELAY
The EX65D is a full function digital delay unit with Feedback, Range, Rate, Width, and Delay level controls. The EX65D provides a maximum delay time of 1,024 milliseconds. The dry sound and effected sound (positive or negative phase) can be combined. When two units are used, synchronization of mudulation is possible.

EX70C COMP/GATE
The EX70C is equipped with a compressor that has a maximum compression of 32dB and easy to use gate functions. There are sync terminals for both functions, so two units can be used for stereo processing.

EX75N NOISE REDUCTION
The EX75N is equipped with an expander which can expand input signals at ratios from 1:1 to 1:8 and a noise reduction function using a low-pass filter to attenuate hissing and other high frequency noise.

EX80E ENHANCER
The EX80E uses a harmonic generator to bring the upper harmonics forward in the mix to give you a brighter and clearer sound. It can also be used to restore the high frequencies that are lost while dubbing or to bring out the details of an instrument or voice whose sound is buried in the overall mix.

EX85P PARAMETRIC EQUALIZER
With the EX85P, equalization is possible for four bands with center frequencies of 40Hz (LO), 60Hz~5kHz (MID LO), 100Hz~10kHz (MID HI), and 12kHz (HI). The levels can easily be varied by ±14dB (LO and HI) and ±18dB (MID LO and MID HI).

An Advanced Computer-Assisted MIDI Compatible Mixing Console

The challenge of a new recording technology has been met. The MPX820 is an impressive eight channel console that stores all front panel functions including levels, sends, returns, aux inputs, pans, and 3 band EQ into its 99 internal memory locations for instant recall. Program changes can be selected from the front panel, by MIDI signal, foot-switch, or from sync tones on tape. The fade time between two different settings is programmable from 40 miliseconds to 30 seconds allowing you to automate fades, pans, and EQ settings.

Impeccable Audio Performance

The sonic performance of the MPX820 is unmatched by any similar console, programmable or not. Thanks to AKAI's minimum signal path design the audio signal actually passes through fewer op-amp stages than in a traditional mixer.

Operational Ease of Use

Operation of the MPX820 is fast and easy. After all, that should be the goal for every computer-assisted console. Simply set up the front panel settings however you desire, and record the settings in one of the 99 memory locations for later recall.

Maximum Performance Flexibility

The MPX820 is the ideal choice as a mixer for a MIDI based keyboard system or as a programmable mixing console in the recording studio. Several MPX820s can be slaved together through MIDI to effer additional channels of automated mixdown so no task is too large to handle. With the MPX820 you can now perform live mixes on stage which were previously possible only in the studio. And in the studio, you can free your hands up to do more than ever before. However you choose to use the MPX820, it will offer you an exciting new sense of performance flexibility in your music creation.

MPX820 SPECIFICATIONS

Frequency response ●	20 Hz ~ 20 kHz
T.H.D. ●	Less than 0.1% at +10 dBm out
S/N EIN ●	−128 WTD
Crosstolk ●	−70 dB at 7 kHz
Inputs (at 0 dBm out) ●	Channels: Mic −70 dBm
	Inst −35 dBm
	Line −20 dBm
	Aux 1, 2: Mic −50 dBm
	Inst −30 dBm
	Line −15 dBm
	Channel in 0 dBm
	Effect RCV −5 dBm
Max output level ●	20 dBm
Channel EQ ●	Hi 10 kHz ±15 dB
	Mid 1.5 kHz ±15 dB
	Low 100 Hz ±15 dB
Programmable Features ●	Fade Time: 40 milliseconds to 30 seconds
	Memory: 99 sets of front panel settings
	Battery backup
	Tape interface
MIDI function ●	Program change
Displays ●	Left and Right mains: 12 segment LED ladder −27 dB to +6 dB (3 dB incr.)
	Channels 1-8: 2 segment LED ladder −10 dB to +10 dB
Feders ●	60 mm
Dimensions ●	482.6(W)×310(H)×203(D) mm (EIA Rack mount/7U)
Weight ●	10.5 kg

FULLY PROGRAMMABLE
8 CHANNEL MIXER
MPX820

A Compact SMPTE Compatible 14 Channel Multitrack Recorder

The MG14D Rack Mountable 14 Track Recorder is a high-performance durable rackmount unit ready to stand up to the rigorous demands of multitrack recording. The MG14D represents a new direction in recording versatility with its compact rackmountable design and SMPTE compatibility. It utilizes the same high quality Super GX multitrack recording head as used in the MG1214 as well as an improved loading mechanism to give you the same professional performance and operational features found on the MG1214. Bar graph meters display the precise signal level on each recording track.
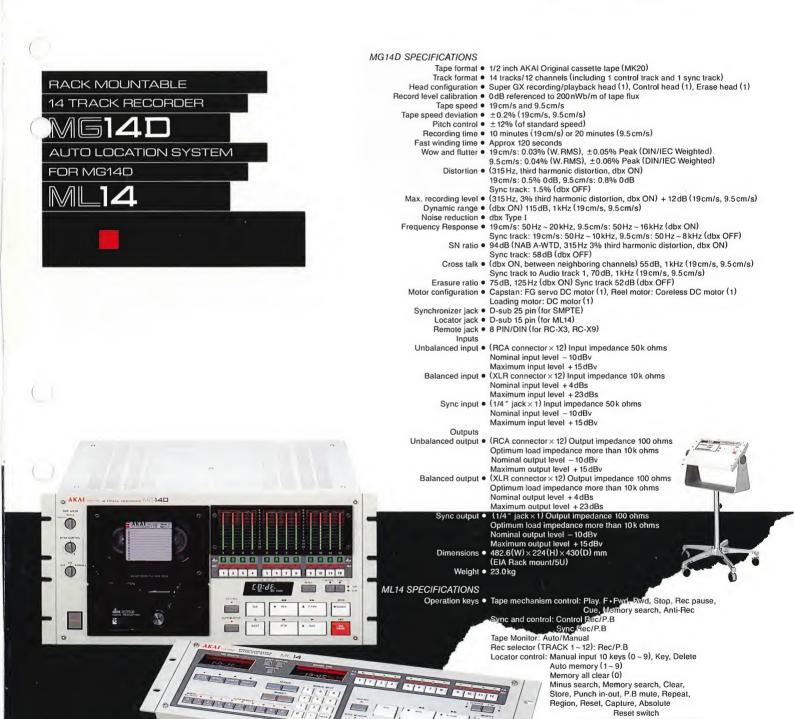
A Versatile Production Tool

The MG14D has 12 audio tracks as well as a sync track and an internal control track. With the use of SMPTE time code it is possible to synchronize your audio and video machines together as well as your MIDI based instruments and sequencers. With SMPTE compatibility the MG14D can be used as a production tool for video, film, and sound effects assembly as well as a tool for creative music production in the recording studio. Combined with the matching ML14 Programmable Auto Locator the capabilities expand into those of a full-fledged professional SMPTE based recording system capable of handling the most demanding work.

An Intelligent Auto Locator for Remote Control of the MG14D

The ML14 represents the state-of-the art in auto locating technology. All transport controls along with record and playback status can be controlled and viewed from the ML14. In addition to providing you with total remote control of the MG14D, it will add an exciting dimension to the operating capabilities. Simple push-button operation of the ML14 Auto Locator's controls yields such sophisticated computer-assisted functions as memory search, punch-in/punch-out, playback mute, repeat, and more. A ten key program pad lets you manually enter values into one of the memories for later recall. The memories in the ML14 will be retained for as long as one week. The momory time and the time count are displayed on a highly visible 5 digit FL display.

RACK MOUNTABLE
14 TRACK RECORDER
MG14D
AUTO LOCATION SYSTEM
FOR MG14D
ML14

MG14D SPECIFICATIONS

Tape format	● 1/2 inch AKAI Original cassette tape (MK20)
Track format	● 14 tracks/12 channels (including 1 control track and 1 sync track)
Head configuration	● Super GX recording/playback head (1), Control head (1), Erase head (1)
Record level calibration	● 0dB referenced to 200nWb/m of tape flux
Tape speed	● 19cm/s and 9.5cm/s
Tape speed deviation	● ±0.2% (19cm/s, 9.5cm/s)
Pitch control	● ±12% (of standard speed)
Recording time	● 10 minutes (19cm/s) or 20 minutes (9.5cm/s)
Fast winding time	● Approx 120 seconds
Wow and flutter	● 19cm/s: 0.03% (W.RMS), ±0.05% Peak (DIN/IEC Weighted)
	9.5cm/s: 0.04% (W.RMS), ±0.06% Peak (DIN/IEC Weighted)
Distortion	● (315Hz, third harmonic distortion, dbx ON)
	19cm/s: 0.5% 0dB, 9.5cm/s: 0.8% 0dB
	Sync track: 1.5% (dbx OFF)
Max. recording level	● (315Hz, 3% third harmonic distortion, dbx ON) +12dB (19cm/s, 9.5cm/s)
Dynamic range	● (dbx ON) 115dB, 1kHz (19cm/s, 9.5cm/s)
Noise reduction	● dbx Type I
Frequency Response	● 19cm/s: 50Hz~20kHz, 9.5cm/s: 50Hz~16kHz (dbx ON)
	Sync track: 19cm/s: 50Hz~10kHz, 9.5cm/s: 50Hz~8kHz (dbx OFF)
SN ratio	● 94dB (NAB A-WTD, 315Hz 3% third harmonic distortion, dbx ON)
	Sync track: 58dB (dbx OFF)
Cross talk	● (dbx ON, between neighboring channels) 55dB, 1kHz (19cm/s, 9.5cm/s)
	Sync track to Audio track 1, 70dB, 1kHz (19cm/s, 9.5cm/s)
Erasure ratio	● 75dB, 125Hz (dbx ON) Sync track 52dB (dbx OFF)
Motor configuration	● Capstan: FG servo DC motor (1), Reel motor: Coreless DC motor (1)
	Loading motor: DC motor (1)
Synchronizer jack	● D-sub 25 pin (for SMPTE)
Locator jack	● D-sub 15 pin (for ML14)
Remote jack	● 8 PIN/DIN (for RC-X3, RC-X9)
Inputs	
Unbalanced input	● (RCA connector×12) Input impedance 50k ohms
	Nominal input level −10dBv
	Maximum input level +15dBv
Balanced input	● (XLR connector×12) Input impedance 10k ohms
	Nominal input level +4dBs
	Maximum input level +23dBs
Sync input	● (1/4″ jack×1) Input impedance 50k ohms
	Nominal input level −10dBv
	Maximum input level +15dBv
Outputs	
Unbalanced output	● (RCA connector×12) Output impedance 100 ohms
	Optimum load impedance more than 10k ohms
	Nominal output level −10dBv
	Maximum output level +15dBv
Balanced output	● (XLR connector×12) Output impedance 100 ohms
	Optimum load impedance more than 10k ohms
	Nominal output level +4dBs
	Maximum output level +23dBs
Sync output	● (1/4″ jack×1) Output impedance 100 ohms
	Optimum load impedance more than 10k ohms
	Nominal output level −10dBv
	Maximum output level +15dBv
Dimensions	● 482.6(W)×224(H)×430(D) mm
	(EIA Rack mount/5U)
Weight	● 23.0kg

ML14 SPECIFICATIONS

Operation keys	● Tape mechanism control: Play, F・Fwd, Rwd, Stop, Rec pause, Cue, Memory search, Anti-Rec
	Sync and control: Control Rec/P.B
	Sync Rec/P.B
	Tape Monitor: Auto/Manual
	Rec selector (TRACK 1~12): Rec/P.B
	Locator control: Manual input 10 keys (0~9), Key, Delete
	Auto memory (1~9)
	Memory all clear (0)
	Minus search, Memory search, Clear,
	Store, Punch in-out, P.B mute, Repeat,
	Region, Reset, Capture, Absolute
	Reset switch
Display	● Time counter 5 digit FLD
	Memory time 5 digit FLD
Memory back-up	● One week
External jack	● D-sub 15 pin (for MG14D)
Dimensions	● 482.6(W)×56(H)×132(D) mm
	(EIA Rack mount/3U)
Weight	● 2.5kg

6 CHANNEL MIXER/
4 TRACK RECORDER
MG614

AKAI *professional*

MG614

MG614 SPECIFICATIONS

DECK SECTION

Tape format	● C-cassette CrO_2 tape
Track format	● 4 track (one way)
Play back channel	● 4 channel + sync
Recording channel	● 4 channel + sync
Head configuration	● 4 track recording/play back head (1) 4 track erase head (1)
Motor configuration	● Capstan: FG servo DD motor (1) Reel drive: DC motor (1) Cam drive: DC motor (1)
Track output	● Output load impedance: 10 k ohms or greater Maximum output level: +12dBv
Tape speed	● 9.5cm/s, 4.75cm/s
Pitch control	● ±10%
Wow and flutter	● 0.04% (peak WTD)
Recording time	● 15 minutes (C-60 tape, 9.5cm/s)
Fast winding time	● Approx 90 seconds (C-60)
Frequency response	● 9.5cm/s: 30Hz~20kHz, 4.75cm/s: 40Hz~13kHz
Noise reduction	● dbx (switchable)
Distortion	● 1.0% (1kHz 0VU)
S/N ratio	● 60dB (EIAJ), 90dB (EIAJ dbx ON)
Cross talk	● 70dB (1kHz, dbx ON)
Erasure ratio	● 70dB (1kHz)

MIXER SECTION (0dB = 1V)

Inputs

Mic	● (1kΩ, balanced XLR×2) Nominal input level −67dBv Maximum input level −16dBv
Mic/Line	● (100kΩ, phone jack×16) Nominal input level −60dBv~10dBv Maximum input level +15dBv
Aux	● (22kΩ, phone jack×2) Nominal input level −10dBv
Acc receive	● (68kΩ, phone jack×4) Nominal input level −10dBv
Effect receive	● (220kΩ, phone jack×2) Nominal input level −20dBv

Outputs

Monitor out	● (100Ω, RCA jack×1) Nominal output level −10dBv
Track out	● (100Ω, RCA jack×1) Nominal output level −10dBv
Acc send	● (100Ω, phone jack×2) Nominal output level −10dBv
Effect send 1・2	● (100Ω, phone jack) Nominal output level −10dBv
S/N ratio	● Mic: Input to line output 68dB (IHF) Line: Input to line output 72dB (IHF)
Indications	● Over load: 20dB above nominal input level
Parametric EQ	● Hi: 800Hz~10kHz ±15dB Low: 40Hz~1.5kHz ±15dB
Frequency response	● Line: 20Hz~20kHz ±1dB Mic: 20Hz~18kHz ±1dB
Distortion	● 0.05% (1kHz, nominal level)/Cross talk ● 65dB (1kHz)
Dimensions	● 470(W)×157(H)×556(D) mm/Weight ● 14.5kg

The New Computer-Assisted Personal Multitrack Recording System

The MG614 is a compact, computer-assisted 6 Channel/4 Track recording system that sets a new standard in personal creative recording technology. It uses compact CrO_2 cassettes and has many of the sophisticated and time-saving convenience features of its big brother the MG1214, including a built-in computerized channel/track selector, and a multi-function auto location system. In addition, an incredibly flexible push-button patching system and track buss allow the MG614 to handle up to a ten channel mix (4 track playback and 6 additional channel inputs) with independent control of every channel.

A Professional Quality Multitrack Recorder and Computerized Auto Locator

The MG614 will record up to 4 audio tracks, one of which can be switched to simultaneously record a special sync track. The extra sync track lets you synchronize MIDI instruments and sequencers to a sync signal without tying up precious audio tracks. You can select either the standard 4.75cm/s tape speed, or the faster 9.5cm/s speed for extended high frequency response. The use of dbx noise reduction system gives you increased headroom and wider dynamic range for exceptional sound clarity and definition. Audible hiss is virtually eliminated and distortion is incredibly low. In addition, the MG614 has a built-in, multi-function auto locator that allows you to perform multi-point search to cue, search and record, search and play, repeat playback, and much more. There are also special functions for auto monitor during playback, and to rehease punch-in recording. These convenience functions along with the computerized auto location system will assist you to make the recording process faster, simpler, and more enjoyable.

A Powerful 6 Channel Mixing Console and Sophisticated Patching System

The creative possibilities with the MG614's flexible mixing capabilities and versatile signal routing system are absolutely astonishing. Each channel offers input selectors, adjustable trim pads, a 2-band parametric sweep type EQ that allows you to select any frequency from 40Hz to 10kHz ±15dB, two independent effect sends (each with a stereo return), pans, buss matrix, and a smooth noise-free fader. There are also two XLR balanced MIC inputs for professional compatibility. Now the creativity starts to flow. The computerized programmable channel/track selector lets any channel be connected to any track input with the simple push of a button. From here, a newly developed switch matrix patch system lets you route signals in almost every conceivable way for monitoring, track bouncing, or mixdown. This marvelously simple push-button patch system entirely eliminates the need for a jungle of patch cords allowing you more time to work on creative recording and mixing. The MG614 is the world's first compact cassette multitrack recording system to offer features that are so advanced and operation that is so simple.